

## WHAT IS CLAIMED IS:

1. A method for determining one or more relationships between a plurality of users of a network system, the method including the steps of:  
5     populating a database with a unique user identifier for each of the plurality of users,  
      further populating the database with connection data for each such user,  
      searching each user's connection data in the database for a predetermined user's unique user identifier to identify all users that have the predetermined user's  
10     unique user identifier in their connection data, and  
      storing the user identifiers of the users located by the search, to provide an inbound connection set for the predetermined user representative of one or more other user's relationship with the predetermined user.
- 15     2. A method as claimed in claim 1 wherein the step of populating the database with connection data for each user includes accessing the connection data on a network access device associated with the user.
- 20     3. A method as claimed in claim 1 or claim 2 where the step of searching each user's connection data in the database for a predetermined user's unique user identifier includes searching each user's connection data in the database for any additional user identifiers for the predetermined user.
- 25     4. A method as claimed in claim 1, claim 2 or claim 3 wherein the inbound connection set are provided to the predetermined user.
- 30     5. A method as claimed in any one of the preceding claims including the step of comparing the inbound connection set with the connection data for the predetermined user, and providing the predetermined user with the user identifier of any users comprised in the inbound connection set which do not comprise part of the predetermined user's connection data.
- 35     6. A method as claimed in claim 5 including the step of providing the predetermined user with the opportunity to include the user identifiers of any users comprised in the inbound connection set which do not comprise part of the predetermined user's connection data in the predetermined user's connection data.

- 5 7. A method as claimed in any one of the preceding claims including the step of comparing the connection data of the predetermined user with the inbound connection set, and providing the predetermined user with the user identifier of any users comprised in the connection data which do not comprise part of the inbound connection set.
- 10 8. A method as claimed in claim 7 including the step of using the user identifiers of any users comprised in the connection data which are not present in the inbound connection set to contact users whose user identifiers are in the predetermined user's connection data but not in the inbound connection set to invite those users to include the predetermined user's user identifier in their connection data.
- 15 9. A method as claimed in any one of the preceding claims including the step of using the inbound connection set to provide an indication of the popularity of a user of the network system.
- 20 10. A method as claimed in any one of the preceding claims including the step of determining whether a user identifier for a predetermined user has changed, and if a change is detected, using the user identifiers comprised in the inbound connection set to contact users who have the predetermined user's user identifier and inform those users of the change in the predetermined user's user identifier.
- 25 11. A method as claimed in any one of the preceding claims including the steps of further populating the database with a user preferred identifier by which a predetermined user prefers to be identified and associating the user preferred identifier with the predetermined user's unique user identifier and additional user identifiers.
- 30 12. A method as claimed in claim 11 including the step of inviting users that have a predetermined user's unique user identifier or additional user identifiers in their connection data to associate the predetermined user's user preferred identifier with the predetermined user's unique user identifier or additional user identifiers in their connection data.
- 35 13. A method as claimed in any one of the preceding claims including the step of

further populating the database with one or more characteristics of each user and searching the record in the database for each user comprised in the predetermined user's connection data for at least one of the characteristics.

- 5        14.    A method as claimed in claim 13 including the step of searching the record in the database of each user comprised in the connection data of each user comprised in the predetermined users connection data and searching the record in the database and connection data of each user comprised in the inbound connection set and each user comprised in the connection data of each user comprised in the inbound connection set for at least one of the characteristics or for a given user identifier or user preferred identifier.
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- 15        15.    A method for maintaining one or more relationships between a plurality of users of a network system, the method including the steps of:  
populating a database with a unique user identifier for each of the plurality of users,  
populating the database with connection data for each such user,  
further populating the database with one or more characteristics of each user, and  
searching the record in the database for each user comprised in a predetermined user's connection data for at least one of the characteristics.
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- 25        16.    A method as claimed in claim 15 including the step of searching the record in the database and connection data of each user comprised in the predetermined users connection data for at least one of the characteristics or for a given user identifier or user preferred identifier.
- 30        17.    A method for creating or maintaining one or more relationships between a subset of users of a network system, the method including the steps of:  
populating a database with a unique user identifier for each member of such subset,  
further populating the database with connection data for each member of such subset, which connection data may include some or all of the user identifiers for the other members of the subset,  
providing each member of the subset with the user identifier of each other member of the subset,  
35        detecting a change in the unique user identifier or additional user identifiers of any

member of the subset, and  
providing the updated unique user identifier or additional user identifier to each  
member of the subset that has the applicable member's old unique user identifier  
or additional user identifier in their connection data.

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18. A method as claimed in claim 17 including the step of detecting the addition of any  
member to the subset and providing existing members of the subset with the  
unique user identifier and additional user identifiers of any such new member.

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19. A method as claimed in claim 18 including the step of detecting any person leaving  
the subset and notifying any member of the subset that has the applicable  
member's unique user identifier or additional user identifiers in their connection  
data of the same.

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20. A method of creating or maintaining relationships between a plurality of users in a  
network system, the method including the steps of:  
populating a database with a unique user identifier for each of the plurality of  
users,  
further populating the database with connection data for each such user,  
20 associating a user preferred identifier with the unique user identifier for a  
predetermined user, and  
communicating the user preferred identifier to users who have the predetermined  
user's unique user identifier in their connection data.

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21. A method as claimed in claim 20 including the step of receiving a change in the  
user preferred user identifier and communicating the change to users who have  
the predetermined user's unique user identifier in their connection data.

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22. A method of determining a user value indication for a predetermined user of a  
network system in respect of a separate but interconnected network system, the  
method comprising the steps of:  
analysing the connection data of users in the applicable separate but  
interconnected network system in respect of for the predetermined user to  
determine a popularity indication for the predetermined user with the users in the  
applicable separate but interconnected network system, and  
35 providing the popularity indication to the predetermined user or to the operator of

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the applicable separate but interconnected network system.

23. A method of creating or maintaining one or more relationships between a plurality of users of a network system, the method including the steps of:
- 5     populating a database with a unique user identifier for each of the plurality of users,
- populating the database with connection data for each such user,
- connecting external systems used as a source of contact or other data by users to the database,
- 10     permitting users to instruct an external system to provide contact or other data from such external system to the database,
- including such contact or other data provided by an external system into a users connection data in the database, and
- providing such contact or other data provided by an external system to the
- 15     instructing user's network access device.
24. A method as claimed in claim 1 including the steps of:
- further populating the database with additional user identifiers of each user, such user identifiers relating to the applicable network system or any other network
- 20     system;
- enabling other users of the network system with one of a predetermined user's user identifiers to request other user identifiers from the system for the predetermined user; and
- providing such other users with a predetermined user's additional user identifiers.
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25. A method as claimed in 1 including the step of providing a means for a predetermined user to mark some or all of their connection data as not accessible to other users of the system to the effect that it would appear to other users of the system that the marked data is not included in the predetermined user's
- 30     connection data.
26. A method as claimed in 1 including the steps of:
- connecting databases populated with connection data to a centralised database;
- populating the central database with some or all of the connection data from the
- 35     connected databases;
- maintaining synchronisation between the connection data in the centralised

database and the connected databases; and  
providing a predetermined user's connection data to that user through any of the  
connected databases, either for restoration to a network access device or  
otherwise.

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27. A method as claimed in 1 including the steps of:  
connecting databases populated with connection data directly with each other;  
transmitting processing requests (relating to any method as claimed in any one of  
the preceding paragraphs), from either a predetermined user of a connected  
database or a process operating on the connected database itself, to the other  
connected databases;  
processing requests received from other connected databases;  
transmitting the results of any processing requests to the originating connected  
database; and  
providing the aggregate results received from all connected databases to the  
predetermined user or process operating on the originating connected database.

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28. A method as claimed in 1 including the steps of:  
connecting databases populated with connection data to a central inter-operator  
exchange;  
transmitting processing requests (relating to any method as claimed in any one of  
the preceding paragraphs), from either a predetermined user of a connected  
database or a process operating on the connected database itself to the central  
inter-operator exchange;  
transmitting such processing requests from the central inter-operator exchange to  
the connected databases;  
processing requests received from the central inter-operator exchange;  
transmitting the results of any processing requests received from the central inter-  
operator exchange to the central inter-operator exchange;  
transmitting results received from connected databases either individually or in  
aggregate from the central inter-operator exchange to the originating connected  
database; and  
providing the aggregate results received from the central inter-operator exchange  
to the predetermined user or process operating on the originating connected  
database.

29. A method as claimed in 1 including the steps of:  
connecting databases populated with connection data to a central data and  
processing centre;  
populating the central database and processing centre with the connection data  
from the connected databases;  
maintaining synchronisation between the connection data in the central database  
and processing centre and the connected databases;  
transmitting processing requests relating to any method as claimed in any one of  
the preceding paragraphs from a predetermined user of a connected database or a  
process operating on the connected database itself to the central database and  
processing centre;  
processing requests received from the connected databases;  
transmitting the results of any processing requests to the originating connected  
database; and  
providing the results to the predetermined user or process operating on the  
originating connected database.
30. Computerised apparatus programmed to implement the method as claimed in any  
one of the preceding claims.
31. Apparatus for determining one or more relationships between a plurality of users of  
a network system, the apparatus including:  
a database populated with a unique user identifier for each of the plurality of users  
and with connection data for each such user,  
a processor adapted to search each user's connection data in the database for a  
predetermined user's unique user identifier to identify all users that have the  
predetermined user's unique user identifier in their connection data, and  
a memory means to store the user identifiers located by the search to provide an  
inbound connection set for the predetermined user representative of one or more  
other user's relationship with the predetermined user.